

6-7: The Quadratic Formula

Warm-Up: 1. Fit a quadratic model to the following data.

x	1	2	3	4	5	6
y	-3	4	17	36	61	92

2. Find the y -intercept of your model. Then find the x -intercepts, if you can.

Let's complete the square!

Quadratic Formula Theorem:

Pop Goes the Weasel

Example 1: Solve $10x^2 - 13x - 3 = 0$.

It is nice when $\sqrt{b^2 - 4ac}$ is a perfect square, but that's not always going to happen.

Example 2: Pop Fligh's problem (an example in the book, p. 382): When is the ball 50 feet high?

So we need our standard form to use the quadratic formula. Why is that?

Homework:

***"It was a high counsel that I once heard given to a young person,
'Always do what you are afraid to do.'" - Ralph Waldo Emerson***